

REMARKS

Applicant has amended claim 10, cancelled claims 14 and 17-21 and added new claims 22-26. Claims 10-13, 15-16 and 22-26 are currently pending in this application

Claim 10 now incorporates claim 14. New claim 22 incorporates claims 10, 11 and 12.

In the Office Action, the Examiner rejected claims 10 and 15 under 35 U.S.C. Section 102(e) as being anticipated by Gutin (US Patent No. 6421179). As claim 10 as amended now incorporates claim 14, the rejection of claims 10 and 15 (which depends from claim 10) are now considered to be moot.

In paragraph 5 of the Office Action, the Examiner rejected claim 14 under 35 U.S.C. Section 103(a) as being obvious over Gutin in view of Noell (US Patent No. 5966482). Although claim 14 has been cancelled, it has been incorporated into claim 10. Applicant respectfully traverses the rejection.

The Noell reference discloses an optical near-field probe having a tip 40. The tip 40 is carried on a transparent membrane 11 arranged over the light emitting surface 9 of an optical waveguide (col. 6, lines 9-15). The tip is provided with a metallic coating 41 which extends in the radial direction over the surface of the membrane 11. so that essentially the area of the core material 3 of the optical waveguide is covered. In this way, dispersion light from the optical waveguide 9 is prevented from exiting past the tip 40 out of the transparent membrane 11 (col. 6, lines 19-27). Below the optical waveguide 2, i.e., below the optical near-field probe, an illuminating device 30 is arranged, which

beams light into the core material 3 of the optical waveguide 2. From the tip 40 only a small portion of the light emitted from the light emission surface 9 is let through (col. 7 lines 10-15).

Noell prevents light from exiting at other locations as the tip 40. In other words, the optical waveguide 2 **acts as light emitter not as light receiver**. By contrast, the subject matter of claim 10 prevents light from entering into the optical waveguide at undesired locations, i.e., the optical waveguide acts as receiver. This feature is recited in claim 10 as "wherein the exit slit is formed by **an entering area** of a first end of the light waveguide". See, for example, FIG. 3 of the present specification where the entering area 15 of the exit slit is shown as receiving light from the diffraction grating 23.

Accordingly, the waveguide of Noell cannot be used for a spectrometer since it represents a light source for illuminating a sample with light in the near-field. Useful coupling of light from the far-field (as in the subject matter of the invention) into the waveguide is not possible. Therefore, claim 10 defines patentable subject matter over Gustin and Noell.

In paragraph 4 of the Office Action, the Examiner rejected claims 11-13 and 15 under 35 U.S.C. Section 103(a) as being obvious over Gutin in view of Korn (US Patent No. 6137938). Claims 11 and 12 have been incorporated into new claim 22. Applicant respectfully traverses the rejection.

The Examiner cited Korn as teaching the feature of claim 12, namely the feature that the "first end of the light


waveguide is sloped such that light entering into the sloped surfaces is not further guided in the core of the light waveguide". Applicant respectfully disagrees.

In the Korn device, the slopes on the fiber end face extend on the border between core and cladding, preferably in the cladding of the fiber (col. 2, lines; 4-6). This is the practice with a single mode fiber (col. 1 lines 15-7). Due to the wave character of the light, the bevelled surfaces act as a lens, **which couple additional light into the core** thereby increasing the coupling efficiency with a laser (col. 1 lines -3-14). By contrast, the subject matter of claim 22 has edges which extend to the sloping sides in the core of the fiber. Due to a sufficiently large inclined angle, the light, which impinges , on the inclined surfaces, is not guided in the core. In other words, the slope acts as a diaphragm. The use of a multi-mode fiber having a core diameter of 50 μ m is described on page 3, lines 25-30, which was brought to a width of 10 μ m. The optical effect of the inclined surfaces and the application differ completely from that of Korn. Provision of any arbitrary spectrometer with waveguides in accordance with Korn would not obtain the diaphragm setting of the subject matter as claimed in claim 22.

Dependent claims 11-13, 15-16, and 23-26 are also patentable by virtue of their dependency from independent parent claims 10 and 22.

Based upon the above amendments and remarks, Applicant respectfully requests reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,

For  *Reg. No. 40,243*
Eugene LeDonne
Attorney for Applicant
Reg. No. 35,930

Reed Smith LLP
599 Lexington Avenue
New York, New York 10022
Telephone No. 212-521-5400